Bansal
09/516728

FILE 'REGISTRY' ENTERED AT 11:41:58 ON 31 JAN 2002
L1 3 S QSRDTEVL/SQSP

Seq.

L1 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2002 ACS
RN 357399-41-8 REGISTRY
CN L-Leucine, L-glutaminyl-L-seryl-L-arginyl-L-.alpha.-aspartyl-L-threonyl-L-.alpha.-glutamyl-L-valyl- (9CI) (CA INDEX NAME)
SQL 8

SEQ 1 QSRDTEVL
========
HITS AT: 1-8

REFERENCE 1: 135:209899

L1 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2002 ACS
RN 164638-49-7 REGISTRY
CN Phosphatase, phosphoprotein (phosphotyrosine) (human isoenzyme .eta.) (9CI) (CA INDEX NAME)
CI MAN
SQL 1337

SEQ 1 MKPAAREARL PPRSPGLRWA LPLLLLLLRL GQILCAGGTP SPIPDPSVAT
51 VATGENGITQ ISSTAESFHK QNGTGTPQVE TNTSEDGESS GANDSLRTPE
101 QGSNGTDGAS QKTPSSTGPS PVFDIKAVSI SPTNVILTWK SNDTAASEYK
151 YVVKHKMENE KTITVVHQPW CNITGLRPAT SYVFSITPGI GNETWGDPRV
201 IKVITEPIPV SDLRVALTGV RKAALSWSNG NGTASCRVLL ESIGSHEELT
251 QDSRLQVNIS GLKPGVQYNI NPYLLQSNKT KGDPLGTEGG LDASNTERSR
301 AGSPTAPVHD ESLVGPVDPS SGQQSRDTEV LLVGLEPGTR YNATVYSQAA
======= =
351 NGTEGQPQAI EFRTNAIQVF DVTAVNISAT SLTLIWKVSD NESSSNYTYK
401 IHVAGETDSS NLNVSEPRAV IPGLRSSTFY NITVCPVLGD IEGTPGFLQV
451 HTPPVPVSDF RVTVVSTTEI GLAWSSHDAE SFQMHITQEG AGNSRVEITT
501 NQSIIIGGLF PGTKYCFEIV PKGPNGTEGA SRTVCNRTVP SAVFDIHVVY
551 VTTTEMWLDW KSPDGASEYV YHLVIESKHG SNHTSTYDKA ITLQGLIPGT
601 LYNITISPEV DHVWGDPNST AQYTRPSNVS NIDVSTNTTA ATLSWQNFDD
651 ASPTYSYCLL IEKAGNSSNA TQVVTDIGIT DATVTELIPG SSYTVEIFAQ
701 VGDGIKSLEP GRKSFCTDPA SMASFDCEVV PKEPALVLKW TCPPGANAGF
751 ELEVSSGAWN NATHLESCSS ENGTEYRTEV TYLNFSTSYN ISITTVSCGK
801 MAAPTRNTCT TGITDPPPPD GSPNITSVSH NSVKVKFSGF EASHGPIKAY
851 AVILTTGEAG HPSADVLKYT YDDFKKGASD TYVTYLIRTE EKGRSQSLSE
901 VLKYEIDVGN ESTTLGYLQW EAGTSGLLPA CVAGFTNITF HPQNKGLIDG
951 AESYVSFSRY SDAVSLPQDP GVICGAVFGC IFGALVIVTV GGFIFWRKKR
1001 KDAKNNEVSF SQIKPKKSKL IRVENFEAYF KKQQADSNCG FAEEYEDLKL
1051 VGISQPKYAA ELAENRGKNR YNNVLPYDIS RVKLSVQTHS TDDYINANYM
1101 PGYHSKKDFI ATQGPLPNTL KDFWRMVWEK NVYAIIMLTK CVEQGRTKCE
1151 EYWPSKQAQD YGDITVAMTS EIVLPEWTIR DFTVKNIQTS ESHPLRQFHF
1201 TSWPDHGVPD TTDLLINFRY LVRDYMKQSP PESPILVHCS AGVGRTGTFI
1251 AIDRLIYQIE NENTVDVYGI VYDLRMHRPL MVQTEDQYVF LNQCVLDIVR
1301 SQKDSKVDLI YQNTTAMTIY ENLAPVTTFG KTNGYIA
HITS AT: 324-331

REFERENCE 1: 123:50866

L1 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2002 ACS
RN 159868-26-5 REGISTRY
CN Phosphatase, phosphoprotein (phosphotyrosine) (human isoenzyme DEP-1) (9CI) (CA INDEX NAME)

OTHER NAMES:
CN Protein tyrosine phosphatase DEP-1 (human)
CI MAN
SQL 1337

```
SEQ      1 MKPAAREARL PPRSPGLRWA LPLLLLLLRL GQILCAGGTP SPIPDPSVAT
        51 VATGENGITQ ISSTAESFHK QNGTGTPQVE TNTSEDGESS GANDSLRTPE
       101 QGSNGTDGAS QKTPSSTGPS PVFDIKAVSI SPTNVILTWK SNDTAASEYK
       151 YVVKHKMENE KTITVVHQPW CNITGLRPAT SYVFSITPGI GNETWGDPRV
       201 IKVITEPIPV SDLRVAHGCE EGCSLSWSNG NGTASCRVLL ESIGSHEELT
       251 QDSRLQVNIS DLKPGVQYNI NPYLLQSNKT KGDPLAQKVA WMPAIQREAG
       301 QGAPPPLCMM SPFVGPVDPS SGQQSRDTEV LLVGLEPGTR YNATVYSQAA
                                  ======= =
       351 NGTEGQPQAI EFRTNAIQVF DVTAVNISAT SLTLIWKVSD NESSSNYTYK
       401 IHVAGETDSS NLNVSEPRAV IPGLRSSTFY NITVCPVLGD IEGTPGFLQV
       451 HTPPVPVSDF RVTVVSTTEI GLAWSSHDAE SFQMHITQEG AGNSRVEITT
       501 NQSIIIGGLF PGTKYCFEIV PKGPNGTEGA SRTVCNRTVP SAVFDIHVVY
       551 VTTTEMWLDW KSPDGASEYV YHLVIESKHG SNHTSTYDKA ITLQGLIPGT
       601 LYNITISPEV DHVWGDPNST AQYTRPSNVS NIDVSTNTTA ATLSWQNFDD
       651 ASPTYSYCLL IEKAGNSSNA TQVVTDIGIT DATVTELIPG SSYTVEIFAQ
       701 VGDGIKSLEP GRKSFCTDPA SMASFDCEVV PKEPALVLKW TCPPGANAGF
       751 ELEVSSGAWN NATHLESCSS ENGTEYRTEV TYLNFSTSYN ISITTVSCGK
       801 MAAPTRNTCT TGITDPPPPD GSPNITSVSH NSVKVKFSGF EASHGPIKAY
       851 AVILTTGEAG HPSADVLKYT YDDFKKGASD TYVTYLIRTE EKGRSQSLSE
       901 VLKYEIDVGN ESTTLGYYNG KLEPLGSYRA CVAGFTNITF HPQNKGLIDG
       951 AESYVSFSRY SDAVSLPQDP GVICGAVFGC IFGALVIVTV GGFIFWRKKR
      1001 KDAKNNEVSF SQIKPKKSKL IRVENFEAYF KKQQADSNCG FAEEYEDLKL
      1051 VGISQPKYAA ELAENRGKNR YNNVLPYDIS RVKLSVQTHS TDDYINANYM
      1101 PGYHSKKDFI ATQGPLPNTL KDFWRMVWEK NVYAIIMLTK CVEQGRTKCE
      1151 EYWPSKQAQD YGDITVAMTS EIVLPEWTIR DFTVKNIQTS ESHPLRQFHF
      1201 TSWPDHGVPD TTDLLINFRY LVRDYMKQSP PESPILVHCS AGVGRTGTFI
      1251 AIDRLIYQIE NENTVDVYGI VYDLRMHRPL MVQTEDQYVF LNQCVLDIVR
      1301 SQKDSKVDLI YQNTTAMTIY ENLAPVTTFG KTNGYIA
```

HITS AT: 324-331

REFERENCE 1: 124:78721

REFERENCE 2: 122:28514

FILE 'CAPLUS' ENTERED AT 11:42:39 ON 31 JAN 2002
L2 4 S L1

L2 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:661490 CAPLUS
DOCUMENT NUMBER: 135:209899
TITLE: Modulation of endothelial cell surface receptor activity in the regulation of angiogenesis
INVENTOR(S): Daniel, Thomas O.; Takahashi, Takamune; Mernaugh, Raymond
PATENT ASSIGNEE(S): Vanderbilt University, USA
SOURCE: PCT Int. Appl., 111 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2001064750	A2	20010907	WO 2001-US6178	20010227

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-516728 A 20000301

AB The authors disclose the use of antibodies to d. enhanced phosphatase (ECRTP/DEP-1) as modulators angiogenesis. The epitope for monoclonal antibody ECRTPAb-1 is disclosed as QSRDTEVL. Methods for screening for modulators of ECRTP/DEP-1 are also disclosed.

IT **357399-41-8**
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(epitope for monoclonal antibody to DEP-1 phosphatase)

L2 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:38673 CAPLUS
DOCUMENT NUMBER: 124:78721
TITLE: Density enhanced protein tyrosine phosphatases, gene cloning, and enzyme modulators
INVENTOR(S): Tonks, Nicholas K.; Oestman, Arnie
PATENT ASSIGNEE(S): Cold Spring Harbon Laboratory, USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9530008	A1	19951109	WO 1995-US5512	19950503
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2166479	AA	19951109	CA 1995-2166479	19950503
EP 708831	A1	19960501	EP 1995-918943	19950503
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09500794	T2	19970128	JP 1995-528507	19950503
US 6114140	A	20000905	US 1997-854585	19970512

PRIORITY APPLN. INFO.: US 1994-237940 A 19940503
WO 1995-US5512 W 19950503

AB Novel Type III d. enhanced protein tyrosine phosphatases are disclosed and exemplified by human DEP-1 enzyme. Polynucleotides encoding huDEP-1 are disclosed, along with methods and materials for prodn. of the same by recombinant procedures. Binding mols. specific for DEP-1 are also disclosed as useful for modulating the biol. activities of DEP-1.

IT **159868-26-5P**

RL: ANT (Analyte); BPN (Biosynthetic preparation); PRP (Properties); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); PREP (Preparation)
(d. enhanced protein tyrosine phosphatases, gene cloning, and enzyme modulators)

L2 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:270255 CAPLUS
DOCUMENT NUMBER: 123:50866
TITLE: Molecular cloning, characterization, and chromosomal localization of a novel protein-tyrosine phosphatase, HPTP.eta.
AUTHOR(S): Honda, Hiroaki; Inazawa, Johji; Nishida, Junji; Yazaki, Yoshio; Hirai, Hisamaru
CORPORATE SOURCE: Dep. Mol. Biol., Jichi Med. Sch., Japan
SOURCE: Blood (1994), 84(12), 4186-94
CODEN: BLOOAW; ISSN: 0006-4971
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Protein-tyrosine phosphatases (PTPases) are considered to play an important role in signal transduction. We previously identified partial sequences of three novel PTPases in a human leukemic cell line, F-36P. We describe here cloning, characterization, and chromosomal localization of one of the newly identified PTPases, termed as HPTP.eta. (human protein-tyrosine phosphatase .eta.). The deduced amino acid sequence was composed of an extracellular region homologous to fibronectin type III repeats, a transmembrane region, and a cytoplasmic region contg. a single PTPase-like domain. Based on its primary structure, this clone belongs to type-III receptor-type PTPases. The PTPase-like domain showed PTPase activity when expressed in Escherichia coli. Antibody against the extracellular region detected a protein of 220 to 250 kD in human hematopoietic cell lines expressing HPTP.eta. mRNA. The antibody also recognized a protein of approx. the same mol. wt. in COS cells transfected with HPTP.eta. cDNA, indicating that the antibody specifically recognized HPTP.eta. gene product and that the cloned cDNA contained full-length coding region. The chromosomal localization detd. by fluorescence in situ hybridization showed that the HPTP.eta. gene was located at chromosome 11p11.2 on the short arm of chromosome 11, which is frequently lost or deleted in human carcinomas.
IT **164638-49-7**
RL: BOC (Biological occurrence); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(mol. cloning, characterization, and chromosomal localization of novel protein-tyrosine phosphatase, HPTP.eta.)

L2 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:122710 CAPLUS
DOCUMENT NUMBER: 122:28514
TITLE: Expression of DEP-1, a receptor-like protein-tyrosine-phosphatase, is enhanced with increasing cell density
AUTHOR(S): Oestman, Arne; Yang, Qing; Tonks, Niholas K.
CORPORATE SOURCE: Cold Spring Harbor Lab., Cold Spring Harbor, NY, 11724-2208, USA
SOURCE: Proc. Natl. Acad. Sci. U. S. A. (1994), 91(21), 9680-4

CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Complementary DNA encoding a receptor-like protein-tyrosine-phosphatase (PTP) termed DEP-1 was isolated from a HeLa cell library. The cDNA predicts an enzyme consisting of an extracellular segment contg. 8 fibronectin type III repeats, a single transmembrane segment, and a single intracellular PTP domain. Following expression of DEP-1 cDNA in COS cells a glycoprotein of 180 kDa was detected and PTP activity was demonstrated in immunocomplexes with a C-terminal peptide antiserum. Endogenous DEP-1 was detected in WI-38 human embryonic lung fibroblasts by immunoblotting and immunocomplex PTP assays. Immunoblot anal. of DEP-1 expression in WI-38 cells revealed dramatically increased levels and activity of the PTP in dense cultures relative to sparse cultures. Also, DEP-1 activity, detected in PTP assays of immunocomplexes, was increased in dense cell cultures. In contrast, the expression levels of PTP-1B did not change with cell d. This enhancement of DEP-1 expression with increasing cell d. was also obsd. in another fibroblast cell line, AG1518. The increase in DEP-1 occurs gradually with increasing cell contact and is initiated before satn. cell d. is reached. These observations suggest that DEP-1 may contribute to the mechanism of contact inhibition of cell growth.
IT **159868-26-5**
RL: MFM (Metabolic formation); PRP (Properties); BIOL (Biological study); FORM (Formation, nonpreparative)
(amino acid sequence; expression of human DEP-1, a receptor-like protein-tyrosine-phosphatase, is enhanced with increasing cell d.)

(FILE 'CAPLUS' ENTERED AT 11:42:39 ON 31 JAN 2002)
L3 3 S ECRTP?(S)(DEPI OR DEP1 OR DEP(W)(I OR 1))
L4 2 S L3 NOT L2

- key terms

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:190955 CAPLUS
DOCUMENT NUMBER: 132:235905
TITLE: Modulation of endothelial cell surface receptor activity in the regulation of angiogenesis
INVENTOR(S): Daniel, Thomas O.; Takahashi, Takamune
PATENT ASSIGNEE(S): Vanderbilt University, USA
SOURCE: PCT Int. Appl., 102 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000015258	A1	20000323	WO 1999-US19965	19990831

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6248327	B1	20010619	US 1998-152160	19980911
AU 9957977	A1	20000403	AU 1999-57977	19990831
EP 1109578	A1	20010627	EP 1999-945368	19990831

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: US 1998-152160 A 19980911
WO 1999-US19965 W 19990831

applicant

AB A method of modulating angiogenesis in a vertebrate subject, the method comprising administering to the vertebrate subject an **ECRTP/DEP-1** receptor activity-modulating amt. of a compn., whereby an **ECRTP/DEP-1** receptor within the vertebrate subject is contacted by the compn.; and modulating angiogenesis through the contacting of the **ECRTP/DEP-1** receptor with the compn. Optionally, the compn. includes a monoclonal antibody which preferentially binds the **ECRTP/DEP-1** receptor. Methods with the monoclonal antibody are used for screening ligand of **ECRTP/DEP-1** receptor and therapeutic agent for tumor.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:668605 CAPLUS
DOCUMENT NUMBER: 132:105849
TITLE: Endothelial localization of receptor tyrosine phosphatase, **ECRTP/DEP-1**, in developing and mature renal vasculature
AUTHOR(S): Takahashi, Takamune; Takahashi, Keiko; Mernaugh, Raymond; Drozdoff, Vladimir; Sipe, Chris; Schoecklmann, Harald; Robert, Barry; Abrahamson, Dale R.; Daniel, Thomas O.
CORPORATE SOURCE: Division of Nephrology, Departments of Medicine and Cell Biology, Vanderbilt University, Nashville, TN, 37232-2372, USA
SOURCE: J. Am. Soc. Nephrol. (1999), 10(10), 2135-2145
CODEN: JASNEU; ISSN: 1046-6673
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Developmental assembly of the renal microvasculature requires spatially and temporally coordinated migration, assembly, differentiation, and maturation of endothelial cells in the context of adjacent epithelial and mesangial cells. In this study, endothelial expression and distribution of the receptor tyrosine phosphatase **ECRTP/DEP-1** were evaluated during and after developmental assembly of the renal microvasculature. Monoclonal antibodies against **ECRTP/DEP-1** ectodomain epitopes localize its expression to membrane surfaces of endothelial cells in glomerular, peritubular capillary, and arterial renal sites of mature human and murine kidney. During kidney development, **ECRTP/DEP-1** immunostaining is evident on a subpopulation of

metanephric mesenchymal cells and on putative progenitors of glomerular capillary endothelial cells early in their recruitment to developing glomeruli. **ECRTP/DEP-1** is prominently displayed on luminal membrane surfaces with punctate accumulations at inter-endothelial contacts that overlap with vascular endothelial-cadherin staining. **ECRTP/DEP-1** is recruited to inter-endothelial contacts in confluent cultured human renal and dermal microvascular endothelial cells, yet exptl. dissocn. of vascular endothelial-cadherin from endothelial junctional complexes fails to redistribute **ECRTP/DEP-1**. These findings indicate that **ECRTP/DEP-1** is expressed in anticipation of glomerular capillary endothelial recruitment during development, and suggest that **ECRTP/DEP-1** ectodomain interacts with endothelial surface ligands that are engaged by cell-cell contact.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

FILE 'REGISTRY' ENTERED AT 11:45:17 ON 31 JAN 2002
E ECRTP/CN
E "DEP-1"/CN
L5 1 S E4

FILE 'CAPLUS' ENTERED AT 11:50:36 ON 31 JAN 2002
L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON "DEP-1 RECEPTOR TYROSINE PHOSPHATASE"/CN
L6 4 SEA FILE=CAPLUS ABB=ON PLU=ON (ECRTP? OR RECEPTOR TYROSINE PHOSPHATAS?)(S)(L5 OR DEPI OR DEP1 OR DEP(W)(I OR 1) OR ENHANC?(2W)PHOSPHATAS?)

=> s l6 not (l2 or l4)
L7 1 L6 NOT (L2 OR L4)

L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:675602 CAPLUS
DOCUMENT NUMBER: 136:50156
TITLE: An extracellular ligand increases the specific activity of the receptor-like protein tyrosine phosphatase DEP-1
AUTHOR(S): Sorby, Maria; Sandstrom, Jill; Ostman, Arne
CORPORATE SOURCE: Ludwig Institute for Cancer Research, Uppsala, S-751 24, Swed.
SOURCE: Oncogene (2001), 20(37), 5219-5224
CODEN: ONCNES; ISSN: 0950-9232
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cellular growth, differentiation and migration is regulated by protein tyrosine phosphorylation. Receptor-like protein tyrosine phosphatases are thus likely to be key regulators of vital cellular processes. The regulation of these enzymes is in general poorly understood. Ligands have been identified only for a small subset of the receptor-like protein tyrosine phosphatases and in no case has upregulation of the specific activity by extracellular ligands been demonstrated. Prompted by earlier findings of ligands for

receptor-like protein tyrosine phosphatases in extracellular matrix we investigated if Matrigel, a prepn. of extracellular matrix proteins, contained modulators of the specific activity of the receptor-like protein tyrosine phosphatase DEP-1. Matrigel stimulation of cells increased the specific activity of immunopptd. DEP-1. Also, incubation of immunopptd. DEP-1 with Matrigel led to an increase in DEP-1 activity, which was blocked by sol. DEP-1 extracellular domain. Finally, immunopptd. .DELTA.ECD-DEP-1, a mutant form of DEP-1 lacking most of the extracellular domain, failed to respond to Matrigel stimulation. These expts. identify Matrigel as a source of DEP-1 agonist(s) and provide the first evidence for upregulation of the specific activity of receptor-like protein tyrosine phosphatases by extracellular ligands.

IT **340735-36-6, DEP-1 receptor tyrosine phosphatase**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(extracellular ligand increases the specific activity of the receptor-like protein tyrosine phosphatase **DEP-1**)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 11:52:07 ON 31 JAN 2002)

L8 13 S L3
L9 13 S L6
L10 13 S L8 OR L9
L11 9 DUP REM L10 (4 DUPLICATES REMOVED)

L11 ANSWER 1 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:392046 BIOSIS
DOCUMENT NUMBER: PREV200100392046
TITLE: Modulation of endothelial cell surface receptor activity in the regulation of angiogenesis.
AUTHOR(S): Daniel, Thomas O. (1); Takahashi, Takamune
CORPORATE SOURCE: (1) Nashville, TN USA
ASSIGNEE: Vanderbilt University
PATENT INFORMATION: US 6248327 June 19, 2001
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (June 19, 2001) Vol. 1247, No. 3, pp. No Pagination. e-file.
ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English

AB A method of modulating angiogenesis in a vertebrate subject, the method comprising administering to the vertebrate subject an **ECRTP/DEP-1** receptor activity-modulating amount of a composition, whereby an **ECRTP/DEP-1** receptor within the vertebrate subject is contacted by the composition; and modulating angiogenesis through the contacting of the **ECRTP/DEP-1** receptor with the composition. Optionally, the composition includes a monoclonal antibody which preferentially binds the **ECRTP/DEP-1** receptor.

L11 ANSWER 2 OF 9 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

ACCESSION NUMBER: 2001-570681 [64] WPIDS
DOC. NO. CPI: C2001-169659
TITLE: Novel antibody for modulating angiogenesis and endothelial cell migration and proliferation, binds endothelial cell **receptor tyrosine phosphatase**/density **enhanced phosphatase**-1.
DERWENT CLASS: B04 D16
INVENTOR(S): DANIEL, T O; MERNAUGH, R; TAKAHASHI, T
PATENT ASSIGNEE(S): (UYVA-N) UNIV VANDERBILT
COUNTRY COUNT: 94
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001064750	A2	20010907	(200164)*	EN	110

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001039898 A 20010912 (200204)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001064750	A2	WO 2001-US6178	20010227
AU 2001039898	A	AU 2001-39898	20010227

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001039898	A	Based on	WO 200164750

PRIORITY APPLN. INFO: US 2000-516728 20000301
AN 2001-570681 [64] WPIDS
AB WO 200164750 A UPAB: 20011105
NOVELTY - A purified antibody (I) (or its fragment or derivative) which preferentially binds an endothelial cell **receptor tyrosine phosphatase**/density **enhanced phosphatase**-1 (**ECRTP/DEP-1**), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a pharmaceutical composition (II) comprising an isolated and purified biologically active **ECRTP/DEP-1** polypeptide, its amide, conjugated, cyclized, fragment or chemically modified form;

(2) screening (III) a candidate substance for an ability to modulate a **receptor tyrosine phosphatase**, by:

(a) establishing a test sample comprising a **receptor tyrosine phosphatase**;

(b) administering a candidate substance to the test sample;

(c) measuring a **receptor tyrosine phosphatase** biological activity in the test sample;

(d) detecting phosphotyrosine residues on the **receptor tyrosine phosphatase**; and

(e) determining whether the candidate substance modulates the **receptor tyrosine phosphatase**, if the **receptor tyrosine phosphatase** biological activity measured for the test sample is greater or less than that of a control sample and if the amount of phosphotyrosine residues on the **receptor tyrosine phosphatase** is greater or less than amount of residues on a **receptor tyrosine phosphatase** derived form a control sample;

(3) a recombinant cell line suitable for use in (III); and

(4) a kit for use in screening a candidate substance for ability to modulate **ECRTP/DEP-1** biological activity, comprising **ECRTP/DEP-1** ectodomain polypeptide or its fragment in a container.

ACTIVITY - Antiinflammatory; Antipsoriatic; Antirheumatic; Antidiabetic; Antiatheroscelerotic; Cytostatic; Osteopathic.

MECHANISM OF ACTION - **ECRTP/DEP-1** modulator; **ECRTP/DEP-1** dimerization promoter or antagonist; Angiogenesis inhibitor. No supporting data is given.

USE - (III) is useful for screening a candidate substance such as an antibody, its derivative or fragment derived from a recombinant phage-displayed antibody library (claimed). (I) blocks endothelial migration and proliferation and inhibits angiogensis in disorders such as inflammatory disorders including immune and non-immune inflammation, chronic articular rheumatism and psoriasis, disorders associated with inappropriate invasion of vessels such as diabetic retinopathy, neovascular glaucoma, capillary proliferation in atherosclerotic plaques and osteoporosis and cancer associated disorders such as solid tumors, solid tumor metastases, angiofibromas, retrolental fibroplasia, hemangiomas and similar cancers.

Dwg.0/13

L11 ANSWER 3 OF 9 WPIDS COPYRIGHT 2002 DERWENT INFORMATION LTD

ACCESSION NUMBER: 2000-271262 [23] WPIDS

DOC. NO. CPI: C2000-082772

TITLE: Contacting an **ECRTP/DEP-1** receptor with an **ECRTP/DEP-1** receptor activity-modulating composition useful for chemotherapeutic drug delivery to modulate angiogenesis, endothelial cell migration and proliferation in tumor tissue.

DERWENT CLASS: B04 D16

INVENTOR(S): DANIEL, T O; TAKAHASHI, T

PATENT ASSIGNEE(S): (UYVA-N) UNIV VANDERBILT

COUNTRY COUNT: 89

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000015258	A1	20000323	(200023)*	EN	100

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC

MW NL OA PT SD SE SL SZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD
SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW
AU 9957977 A 20000403 (200034)
EP 1109578 A1 20010627 (200137) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI
US 6248327 B1 20010619 (200137)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000015258	A1	WO 1999-US19965	19990831
AU 9957977	A	AU 1999-57977	19990831
EP 1109578	A1	EP 1999-945368	19990831
		WO 1999-US19965	19990831
US 6248327	B1	US 1998-152160	19980911

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9957977	A	Based on	WO 200015258
EP 1109578	A1	Based on	WO 200015258

PRIORITY APPLN. INFO: US 1998-152160 19980911
AN 2000-271262 [23] WPIDS
AB WO 200015258 A UPAB: 20000516
NOVELTY - Modulating angiogenesis, endothelial cell migration and proliferation in a vertebrate comprising contacting an **ECRTP /DEP-1** receptor (a receptor phosphatase) (I) with an **ECRTP/DEP-1** receptor activity-modulating composition (II) is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an antibody (III) which preferably binds to (I) or its fragments or derivatives;

(2) isolating a ligand for (I) comprising contacting cells or cell lysates containing the ligand with the receptor and isolating the ligand that binds to (I);

(3) identifying cells containing the ligand comprising screening cell cultures with labeled (I) and isolating cells that bind an elevated amount of (I);

(4) a ligand for (I);

(5) screening for compounds that modulate the activity of (I) in a cell or cell-free system comprising:

(a) establishing replicate test and control systems/cultures of cells that comprise (I) and its ligand/express (I), respectively;

(b) administering a candidate compound to the (cells in the) test but not the control system/culture; and

(c) comparing the activity of (I) (in cells) in the test and control systems/cultures. In the cell-free system, this is measured by determining the binding affinity of (I) to its ligand. The compound modulates the activity of (I) if the activity of (I)/binding affinity for the test system/culture is greater or less

than that of the control; and
(6) a recombinant cell line suitable for use in method (5).
ACTIVITY - Cytostatic; modulator of angiogenesis. No biological data given.
MECHANISM OF ACTION - None given.
USE - The antibody-containing composition (II) can be used to modulate angiogenesis, endothelial cell migration and proliferation in a vertebrate by targeting chemotherapeutic drugs to tumor tissue. The antibody (III) may be operatively linked to a selected therapeutic agent, preferably a chemotherapeutic agent, such that it binds to (I) on the surface of endothelial cells of tumor tissue and delivers the agent to that tissue.
ADVANTAGE - The new method is very effective because it is highly selective for treating angiogenesis rather than other biological processes. The **ECRTP/DEP-1** receptor localizes to endothelial cells and so primarily new vessel growth contains substantial **ECRTP/DEP-1** receptor, leaving mature vessels unaffected by the treatment. Furthermore, the **ECRTP/DEP-1** receptor is not widely distributed in normal tissues, thereby assuring that the therapy can be selectively targeted.
Dwg.0/31

L11 ANSWER 4 OF 9 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 1999433509 MEDLINE
DOCUMENT NUMBER: 99433509 PubMed ID: 10505690
TITLE: Endothelial localization of **receptor tyrosine phosphatase, ECRTP /DEP-1**, in developing and mature renal vasculature.
AUTHOR: Takahashi T; Takahashi K; Mernaugh R; Drozdoff V; Sipe C; Schoecklmann H; Robert B; Abrahamson D R; Daniel T O
CORPORATE SOURCE: Department of Medicine, Vanderbilt University, Nashville, Tennessee, USA.
CONTRACT NUMBER: CA68485 (NCI)
DK38517 (NIDDK)
DK52483 (NIDDK)
SOURCE: JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY, (1999 Oct) 10 (10) 2135-45.
Journal code: A6H; 9013836. ISSN: 1046-6673.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199911
ENTRY DATE: Entered STN: 20000111
Last Updated on STN: 20000111
Entered Medline: 19991109

AB Developmental assembly of the renal microvasculature requires spatially and temporally coordinated migration, assembly, differentiation, and maturation of endothelial cells in the context of adjacent epithelial and mesangial cells. In this study, endothelial expression and distribution of the **receptor tyrosine phosphatase ECRTP/DEP -1** were evaluated during and after developmental assembly of the renal microvasculature. Monoclonal antibodies against **ECRTP/DEP-1** ectodomain epitopes localize

its expression to membrane surfaces of endothelial cells in glomerular, peritubular capillary, and arterial renal sites of mature human and murine kidney. During kidney development, **ECRTP/DEP-1** immunostaining is evident on a subpopulation of metanephric mesenchymal cells and on putative progenitors of glomerular capillary endothelial cells early in their recruitment to developing glomeruli. **ECRTP/DEP-1** is prominently displayed on luminal membrane surfaces with punctate accumulations at inter-endothelial contacts that overlap with vascular endothelial-cadherin staining. **ECRTP/DEP-1** is recruited to inter-endothelial contacts in confluent cultured human renal and dermal microvascular endothelial cells, yet experimental dissociation of vascular endothelial-cadherin from endothelial junctional complexes fails to redistribute **ECRTP/DEP-1**. These findings indicate that **ECRTP/DEP-1** is expressed in anticipation of glomerular capillary endothelial recruitment during development, and suggest that **ECRTP/DEP-1** ectodomain interacts with endothelial surface ligands that are engaged by cell-cell contact.

L11 ANSWER 5 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
DUPLICATE 2
ACCESSION NUMBER: 1999:285966 BIOSIS
DOCUMENT NUMBER: PREV199900285966
TITLE: Endothelial cell **receptor tyrosine phosphatase**/density **enhanced phosphatase**-1, **ECRTP/DEP-1**, is an oligomerization responsive angiostatic switch.
AUTHOR(S): Takahashi, T. (1); Takahashi, K. (1); Liu, H. (1); Mernaugh, R. (1); Daniel, T. O. (1)
CORPORATE SOURCE: (1) Vanderbilt University Medical Center and Vanderbilt Cancer Center, Nashville, TN, 37232 USA
SOURCE: FASEB Journal, (March 15, 1999) Vol. 13, No. 5 PART 2, pp. A694.
Meeting Info.: Annual Meeting of the Professional Research Scientists on Experimental Biology 99 Washington, D.C., USA April 17-21, 1999 Federation of American Societies for Experimental Biology . ISSN: 0892-6638.
DOCUMENT TYPE: Conference
LANGUAGE: English

L11 ANSWER 6 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:529914 BIOSIS
DOCUMENT NUMBER: PREV199900529914
TITLE: Endothelial cell **receptor tyrosine phosphatase, ECRTP/DEP-1**/CD148, is an oligomerization responsive angiostatic switch.
AUTHOR(S): Takahashi, T. (1); Takahashi, K. (1); Liu, H. (1); Mernaugh, R. (1); Daniel, T. O. (1)
CORPORATE SOURCE: (1) Renal Division, Center for Vascular Biology, and Vanderbilt-Ingram Cancer Center, Vanderbilt University, Nashville, TN USA
SOURCE: Journal of the American Society of Nephrology, (Sept., 1999) Vol. 10, No. PROGRAM AND ABSTR. ISSUE,

pp. 411A.
Meeting Info.: 32nd Annual Meeting of the American Society of Nephrology Miami Beach, Florida, USA November 1-8, 1999 American Society of Nephrology . ISSN: 1046-6673.
DOCUMENT TYPE: Conference
LANGUAGE: English

L11 ANSWER 7 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1999:19491 BIOSIS
DOCUMENT NUMBER: PREV199900019491
TITLE: Glomerular endothelial localization of **receptor tyrosine phosphatase** (RPTP), **ECRTP/DEP-1**, a mediator of growth arrest signals.
AUTHOR(S): Takahashi, Takamune (1); Takahashi, Keiko; Mernaugh, Raymond; Robert, Barry; Abrahamson, Dale; Daniel, Thomas O.
CORPORATE SOURCE: (1) Nephrol. Div., Nashville, TN USA
SOURCE: Journal of the American Society of Nephrology, (Sept., 1998) Vol. 9, No. PROGRAM AND ABSTR. ISSUE, pp. 368A.
Meeting Info.: 31st Annual Meeting of the American Society of Nephrology Philadelphia, Pennsylvania, USA October 25-28, 1998 American Society of Nephrology . ISSN: 1046-6673.
DOCUMENT TYPE: Conference
LANGUAGE: English

L11 ANSWER 8 OF 9 SCISEARCH COPYRIGHT 2002 ISI (R)
ACCESSION NUMBER: 97:763784 SCISEARCH
THE GENUINE ARTICLE: XY103
TITLE: Renal endothelial **receptor tyrosine phosphatase** (RPTP) **ECRTP/DEP-1** senses cell density.
AUTHOR: Takahashi T (Reprint); Takahashi K; Lane A; Daniel T O
CORPORATE SOURCE: VANDERBILT UNIV, DIV NEPHROL, NASHVILLE, TN
COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY, (SEP 1997) Vol. 8, Supp. [S], pp. A2079-A2079.
Publisher: WILLIAMS & WILKINS, 351 WEST CAMDEN ST, BALTIMORE, MD 21201-2436.
ISSN: 1046-6673.
DOCUMENT TYPE: Conference; Journal
FILE SEGMENT: LIFE; CLIN
LANGUAGE: English
REFERENCE COUNT: 0

L11 ANSWER 9 OF 9 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1998:24190 BIOSIS
DOCUMENT NUMBER: PREV199800024190
TITLE: Renal endothelial **receptor tyrosine phosphatase** (RPTP) **ECRTP/DEP-1** senses cell density.
AUTHOR(S): Takahashi, Takamune; Takahashi, Keiko; Lane, Andrew;

09/516728

	Daniel, Thomas O.
CORPORATE SOURCE:	Div. Nephrol., Vanderbilt Univ., Nashville, TN USA
SOURCE:	Journal of the American Society of Nephrology, (Sept., 1997) Vol. 9, No. PROGRAM AND ABSTR. ISSUE, pp. 448A. Meeting Info.: 30th Annual Meeting of the American Society of Nephrology San Antonio, Texas, USA November 2-5, 1997 American Society of Nephrology . ISSN: 1046-6673.
DOCUMENT TYPE:	Conference
LANGUAGE:	English

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Searcher : Shears 308-4994